## Right atrial myxoma associated with atrial flutter rhythm

Manuela Balaban Kumpare<sup>1\*</sup>, Damir Raljević<sup>2</sup>, Krešimir Milas<sup>1</sup>, Daglas Dodić<sup>1</sup>, Nediljko Jukić<sup>1</sup>, Viktor Peršić<sup>2</sup>

<sup>1</sup>Pula General Hospital Pula, Croatia <sup>2</sup>Thalassotherapija Opatija, Opatija, Croatia

**Background:** Myxoma is the most common primary cardiac neoplasm and accounts for approximately one-half of all primary cardiac tumours. 70% of cardiac myxomas usually arise from the left atrium in the area of fossa ovalis. The remaining 20% is observed in the right atrium and 5% is usually reported in the right or left ventricle. Approximately 50% of patients with myxomas may experience symptoms due to central or peripheral embolism or intracardiac obstruction, but 10% of patients may be completely asymptomatic. These symptoms are determined by the involvement of a specific chamber and also by the size of the tumor¹.

Case report: We present a case of a right atrial myxoma that was associated with atrial flutter rhythm in a 70-year old female with a medical history of dyspnea. A transthoracic echocyrdiography confirmed a large mass in the right atrium. Transesophageal echocardiogram (TEE) and magnetic resonance imaging (MRI) demonstrated correct anatomical and surgical data pre-operatively (a mass of 6,3 x 5,3 cm attached to atrial septal tissue). MSCT coronarography found nonsignificant stenosis of proximal LAD with myocardial bridging at the middle third and suspected ASD. A right atrial mass excision was performed with pericardial patch of atrial septal defect, resulting in successful removal of the tumor. Histopathology results were consistent with myxoma.

**Discussion:** Cardiac tumors represent a challenge in diagnostic cardiac imaging. The major differential diagnosis of myxoma is thrombus, which often has a rapid growth rate. Screening for myxomas should involve a thorough history, physical examination and a transthoracic and/or transesophageal echocardiogram. Echocardiography has made a profound impact on the diagnosis and management of car-

diac myxomas. With M-mode and two-dimensional echocardiography the preoperative diagnosis of this pathology has increased to 90%2. The use of TEE may offer valuable assistance in patients with poor acoustic windows by virtue of confirming tumor attachment site and dimensions, detecting other masses, and defining any obstruction to flow3. Although echocardiography is the modality of choice in screening for cardiac masses, MRI provide additional information about tissue characteristics and allow an excellent overview of the cardiac and paracardiac morphology. The advantage of these techniques is that they provide sectional views of cardiac and thoracic structures without superposition in any plane<sup>4</sup>. Once a presumptive diagnosis of myxoma has been made on imaging studies, prompt resection is required because of the risk of embolization or cardiovascular complications, including sudden death⁵.

**KEYWORDS:** right atrial myxoma, atrial flutter, echocardiography.

Received: 20th Mar 2013

\*Address for correspondence: Opća bolnica Pula, Zagrebačka 30, HR-52100 Pula, Croatia.

Phone: +385-52-376-242 Fax: +385-52-376-240

E-mail: manuela.balaban1@pu.htnet.hr

## Literature

- 1. Aggarwal SK, Barik R, Sarma TC, Iyer VR, Sai V, Mishra J. Clinical presentation and investigation findings in cardiac myxomas: new insights from the developing world. Am Heart J. 2007;154(6):1102-7.
- 2. Sugeng L, Lang RM. Atypical cardiac myxomas. Echocardiography. 2004;21(1):43-7.
- 3. DeVille JB, Corley D, Jin BS, de Castro CM, Hall RJ, Wilansky S: Assessment of intracardiac masses by transesophageal echocardiography. Tex Heart Inst J. 1995;22(2):134-
- 4. Fieno DS, Saouaf R, Thomson LE, Abidov A, Friedman JD, Berman DS. Cardiovascular magnetic resonance of primary tumors of the heart: a review. J Cardiovasc Magn Reson. 2006:8(6):839-53.
- 5. Patil NP, Dutta N, Satyarthy S, Geelani MA, Kumar Satsangi D, Banerjee A. Cardiac myxomas: experience over one decade. J Card Surg. 2011;26(4):355-9.

2013;8(5-6):219. Cardiologia CROATICA